

# NPC-Series - Valve Regulated Lead Acid Battery

## NPC24-12I

SPECIFICATIONS		
Nominal voltage	12	V
20-hr rate Capacity to 10.5V at 20°C	24	Ah
10-hr rate Capacity to 10.8V at 20°C	21.12	Ah
DIMENSIONS		
Length	166 (±0.5)	mm
Width	175 (±0.5)	mm
Height (height over terminals)	125 (±0.5)	mm
Mass (typical)	9.0	kg
TERMINAL TYPE		
Female threaded terminal	M5	mm
Torque	2.5	Nm
OPERATING TEMPERATURE RANGE		
Storage	-20°C to +60°C	
Charge	-15°C to +50°C	
Discharge	-20°C to +60°C	
STORAGE		
Capacity loss per month at 20°C (approx)	3	%
CASE MATERIAL		
Standard Option	ABS (UL 94:HB)	
Flame retardant option (FR)	N/A	
CHARGE VOLTAGE		
Float charge voltage at 20°C	13.65 (±1%)	V
	2.275 (±1%)	V/cell
Float Charge voltage temperature correction factor (for variations from the standard 20°C)	-3	mV/cell/°C
Cyclic (or Boost) charge at 20°C	14.5 (±3%)	V
	2.42 (±3%)	V/cell
Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C)	-4	mV/cell/°C
CHARGE CURRENT		
Float charge current limit	No limit	A
Cyclic (or Boost) charge current limit	6.00	A
MAXIMUM DISCHARGE CURRENT		
1 second	500	A
1 minute	240	A
SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE (according to EN IEC 60896-21)		
Internal resistance	N/A	mΩ
Short-Circuit current	N/A	A
CYCLIC LIFE DATA		
100% DOD down to 80% capacity	300	cycles
75% DOD down to 80% capacity	500	cycles
50% DOD down to 80% capacity	600	cycles
25% DOD down to 80% capacity	1400	cycles
IMPEDANCE		
Measured at 1 kHz	8.8	mΩ
PERFORMANCE & CHARACTERISTICS		
Refer to the technical manual	NPC	
DESIGN LIFE		
EUROBAT Classification: Standard Commercial	Cycle	3 to 5 years
Life data: e.g. 600 cycles at 50% DOD		
SAFETY		
<b>Installation</b>		
Can be installed and operated in any orientation except permanently inverted		
<b>Handles</b>		
Batteries must not be suspended by their handles (where fitted)		
<b>Vent valves</b>		
Each cell is fitted with a low pressure release valve to allow gasses to escape and then reseal.		
<b>Gas Release</b>		
VRLA Batteries release hydrogen gas which can form explosive mixtures in air. Do not place inside a sealed container		
<b>Recycling</b>		
YUASA's VRLA batteries must be recycled at the end of life in accordance with local and national laws and regulations		

# Data Sheet



## LAYOUT



## 3RD PARTY CERTIFICATIONS

ISO 9001 - Quality Management Systems  
 ISO 14001 - Environmental Management Systems  
 EN 18001 - OHSAS Management Systems  
 ISO 9001 - Quality Management Systems



UNDERWRITERS LABORATORIES Inc.

## STANDARDS

IEC61056



ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE  
 Issue No.: V.1 / Issue Date: July 2010



YUASA BATTERY SALES  
 UK LTD.  
 Unit 13, Hunts Rise  
 South Marston Industrial  
 Estate  
 Swindon  
 SN3 4TG